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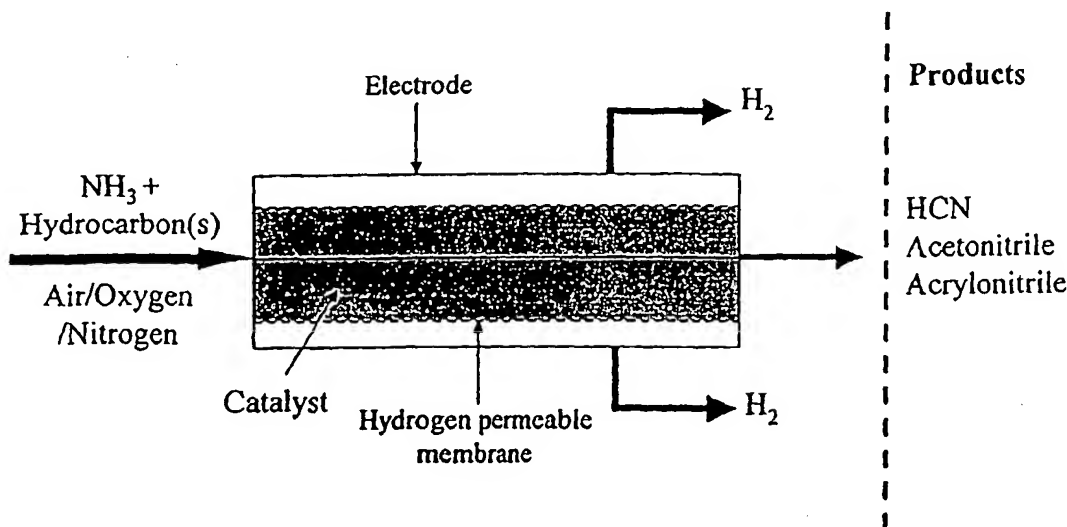
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(54) Title: **SYSTEM AND METHOD FOR THE MANUFACTURE OF HYDROGEN CYANIDE AND ACRYLONITRILE WITH SIMULTANEOUS RECOVERY OF HYDROGEN**



(57) Abstract: A system and method for the manufacture of hydrogen cyanide, acrylonitrile, and acetonitrile are provided. The system comprises at least one pulsed corona discharge reactor with each pulsed corona discharge reactor having a reaction zone. At least one reactant feed stream containing hydrogen is introduced into the pulsed corona discharge reactor and contacting the catalyst wherein hydrogen is removed from the reactant to form hydrogen cyanide, acrylonitrile, and acetonitrile.



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